

In the claims:

1. (previously presented) A data carrier into which, by a laser beam, identifiers are introduced in the form of patterns, letters, numbers or images that are visible due to local changes in the optical properties of the data carrier, effected by the laser beam and resulting from material transformations, characterized in that:

the data carrier comprises a laser-sensitive recording layer that is transparent in the visible spectral range and that is provided with a surface relief in the form of a lens grid, such that the identifiers are introduced with the laser beam from different directions through the lens grid into the recording layer and are perceptible when viewed from the same directions, and in that

the data carrier is transparent at least in the area of the introduced identifiers.

2. (original) The data carrier according to claim 1, characterized in that the changes in the optical properties of the data carrier are visible in transmitted light.

3. (previously presented) The data carrier according to claim 1, characterized in that the changes in the optical properties of the data carrier are visible in reflected light.

4. (previously presented) The data carrier according to claim 1, characterized in that the lens grid comprises cylindrical lenses or spherical lenses.

5. (previously presented) The data carrier according to claim 1, characterized in that the recording layer is formed by a non-self-supporting layer of a thickness of about 1 μm to about 800 μm .

6. (previously presented) The data carrier according to claim 1, characterized in that the recording layer is disposed in the interior of the data carrier.

7. (previously presented) The data carrier according to claim 1, characterized in that the identifiers comprise personal data, namely a signature, a birth date, or a portrait.

8. (previously presented) The data carrier according to claim 1, characterized in that the identifiers comprise data relating to the data carrier, namely a validity period, a card number, or information about the issuing authority or institute.

9. (previously presented) The data carrier according to claim 1, characterized in that the identifiers are present in screened form, the grid elements preferably being formed by rod-shaped pixels.

10. (previously presented) The data carrier according to claim 1, characterized in that the identifiers that are perceptible from different directions are present nested within each other in the recording layer.

11. (previously presented) The data carrier according to claim 1, characterized in that the data carrier exhibits an at least partially transparent main body, in or on which the recording layer and the lens grid are disposed.

12. (previously presented) The data carrier according to claim 1, characterized in that the data carrier exhibits, in addition to the identifiers, black-and-white or colored impressions or further laser inscriptions.

13. (previously presented) The data carrier according to claim 1, characterized in that the data carrier is provided with one or more further security features.

14. (previously presented) The data carrier according to claim 1, characterized in that the data carrier constitutes a value document.

15. (previously presented) The data carrier according to claim 1, characterized in that the data carrier constitutes a security element for application to a value document.

16. (previously presented) A value document having a value document substrate having a window area or hole that is covered on one side or on both sides with a security element according to claim 15.

17. (previously presented) A method for manufacturing a data carrier comprising the steps of:

securing a laser-sensitive recording layer to the data carrier, said laser sensitive recording layer being transparent in the visible spectral range and providing said laser sensitive recording layer with a surface relief in the form of a lens grid, and

subsequently, in a transparent area of the data carrier, introducing a plurality of identifiers with a laser beam directed into the recording layer through the lens grid,

wherein each said identifier is introduced from a direction different from at least one other identifier, such that the identifiers are perceptible when the data carrier is later viewed from the same direction from which the identifiers were introduced.

18. (previously presented) The method according to claim 17, characterized in that the identifiers are introduced in a screening method, and the grid elements are formed by rod-shaped pixels.

19. (original) The method according to claim 18, characterized in that the grid elements are produced by irradiating the lens grid with laser pulses.